Neighborhood Traffic Plan

Public Works & Utilities – Engineering, June 2017
PURPOSE

The Neighborhood Traffic Plan was developed in an effort to address concerns expressed by residents regarding speeding and other traffic complaints in their neighborhoods and enables residents and or community groups to become involved with the improvement process.

OVERVIEW

The plan provides information on a variety of different approaches and physical improvements that can be considered and utilized in neighborhoods to improve safety of our residents.

The plan outlines:

- the **process and various strategies** that can address traffic issues
- **what “traffic calming” is** and how it can help
- what types of **streets** can support traffic calming
- **how to start a Neighborhood Traffic Group** (Attachment 1)
CITY OF WATSONVILLE

CONTACT INFORMATION

Customer Service
(831) 768-3133
customerservice@cityofwatsonville.org

Police Department
(831) 471-1151 (non-emergency dispatch)

Traffic Enforcement
(831) 768-3315

Public Works and Utilities Department
(831) 768-3100

Traffic Operations
(831) 768-3140

Neighborhood Services
(831) 763-5678
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NEIGHBORHOOD TRAFFIC PLAN

INTRODUCTION

The City of Watsonville’s Neighborhood Traffic Plan was developed to address concerns expressed by residents regarding speeding and other traffic complaints within their neighborhoods. The Neighborhood Traffic Plan seeks to improve neighborhoods by addressing safety and quality-of-life issues by providing residents the opportunity to become actively involved in the improvement of their neighborhoods.

Residents are more familiar with traffic concerns within their neighborhoods, which is why community involvement in this effort is crucial. The Neighborhood Traffic Plan is designed to bring neighborhoods together, provide residents an understanding of what “traffic calming” is and to identify appropriate measures, which can alter travel behavior to the betterment of the impacted neighborhoods. The intent is to improve safety and to positively impact resident’s quality of life.

This document provides an overview of the procedures and methods used in addressing traffic concerns within residential neighborhoods and throughout the City.
GOALS

Resolving traffic issues works best when residents and City staff work together. A collaborative effort ensures a greater probability of success in addressing neighborhood quality of life issues. This step by step process works to achieve the following goals:

- To **encourage community involvement** in solutions to neighborhood traffic issues
- To **improve quality of life** in neighborhoods by addressing “undesirable traffic” (such as excessive speeds, traffic using neighborhood streets to quick by pass or “cut through” to get to where they are going, etc.)
- **Increase access, safety and comfort** on neighborhood streets for all users
- To **utilize public resources efficiently** by prioritizing traffic mitigation requests in accordance with procedures and established criteria
- **Work collaboratively with the community** to change the overall view of alternative transportation modes in the City through education, public participation, planning and design to more accurately reflect overall City transportation and environmental policies and values.
WHAT IS TRAFFIC CALMING?

Traffic calming is the use of physical design and other measures to improve safety for motorists, pedestrians and cyclists. It aims to encourage safer, more responsible driving and potentially reduce traffic flow.

Traffic Calming Guiding Principles

The guiding principles of traffic calming include:

- Development and selection of traffic calming measures that encourage and facilitate public involvement.
- Installation of traffic calming measures should minimize diverted traffic to other local or residential collector streets.
- Emergency vehicle access, including safety and response times must be considered.
- Use of sound traffic engineering principles.
- Only State/Federal approved regulatory and/or warning signs may be installed.
- Bicycle and pedestrian travel should be enhanced through traffic calming and congestion relief.
Effective traffic calming employs the 3 E’s: Education, Enforcement and Engineering. The Neighborhood Traffic Plan is based on a combination of these three elements.

**Education**

Traffic safety education aims to improve driver, pedestrian and bicyclist behavior and enhance safety in neighborhoods and school zones. Inappropriate driving, walking or riding behavior is often the root cause of many traffic accidents. This is why education is an important tool that communities are using in conjunction with enforcement and engineering to calm traffic.

A variety of tools can be used to accomplish this, including:

- **Neighborhood Speed Watch**: an educational program designed to provide residents an opportunity to get involved and increase driver awareness of speed limits within residential neighborhoods. (See APPENDIX A for more details)
- **Radar Speed Monitoring Trailer** – mobile unit on roads that display vehicles’ speed
- **Flyers and door hangers** reminding local residents to “Slow Down”
- **Lawn signs** are additional educational tools that are available and have been used successfully in our City.
**Enforcement**

Police enforcement entails the presence of police to monitor speeds and other inappropriate driving behavior and issue citations when necessary. This method is used as an initial attempt to increase driver compliance on streets. It is most applicable on streets with documented speeding problems or notable stop sign/red light violations that need mitigation. Speed data gathered through the Neighborhood Speed Watch can be used to support additional enforcement requests.

**Engineering**

Engineering includes the design and construction of physical improvements and/or the installation of traffic control devices – as governed by federal, state and local policies and guidelines – to address speeding, volume and/or pedestrian safety concerns. Public Works will conduct an evaluation or engineering study to determine the appropriate measures that can be implemented to address the concern.

Examples of physical improvements can include installations such as speed humps, median islands, flashing beacons, etc. A more comprehensive and detailed list is included in Appendix B.
TRAFFIC CALMING STRATEGIES AND TECHNIQUES

Undesirable traffic, such as motorists traveling at high traffic speeds, heavy traffic volumes and inappropriate driver behavior can adversely impact neighborhoods. These conditions can also have a negative effect on pedestrians and bicyclists, particularly near schools, community centers, libraries or parks. Traffic calming can be used to effectively address these conditions.

There are various types of traffic calming strategies that can be used. These include some basic techniques such as:

- Police presence and enforcement
- Improvement or replacement of existing traffic control installations (such as pavement markings, signs, striping, etc.)
- Radar speed monitoring trailer
- Formation of **Neighborhood Traffic Group** (see page 10 for more details), which can include:
  - Neighborhood meetings
  - Education techniques
  - Temporary speed awareness signs
  - Neighborhood Speed Watch

![Safety Matters Logo](image)
Higher level, more comprehensive techniques can include physical traffic calming measures such as:

✓ Sidewalk extensions or bulb outs
✓ Median islands
✓ Speed tables (humps)
✓ Vehicle turning restrictions
✓ Etc.....

*More detailed description of the various Traffic Calming techniques and strategies are included in Appendix B.*
CAN TRAFFIC CALMING BE USED ON MY STREET?

STREETS THAT QUALIFY

Neighborhood Traffic Plan strategies and techniques for traffic calming may be implemented in a residential neighborhood where street characteristics fall within the following requirements:

- Streets must be primarily residential and classified* as either a “local” or “collector”.

- Average daily traffic volume is at minimum 500 vehicles per day and does not exceed 2,500 vehicles per day.

- Changes in traffic flow would not divert significant amounts of traffic to other residential streets

- Watsonville Police and Fire Departments must review and approve any proposed improvements to ensure satisfactory emergency service access

*NOTE:
Street classifications are based upon Federal Highway Administration and the State of California requirements. “Local” streets are designed for high accessibility (that means they typically have many driveways and walkways) and are the slowest for travel: typically they are not used for through traffic. “Collector” streets are used as a connection between local roads and the more heavily traveled arterial roads.

The Neighborhood Traffic Plan is not designed to address dangerous intersections, mitigate noise from major arterials, or redesign the overall transportation/street classification system.
HOW DO I GET STARTED IN ADDRESSING TRAFFIC ISSUES ON MY STREET?

If your neighborhood is experiencing traffic issues, you can begin addressing the issues by talking to City staff (see Contact Information). The following measures would be implemented progressively through the various levels to the extent necessary to address traffic issues in your neighborhood. If the first level is not effective at addressing the issue, then residents and City staff would proceed with the next level accordingly.

LEVEL 1 - RESIDENT REQUESTS

Measures identified as Level 1 are those that are currently used on all streets, regardless of the street classification.

- Police presence and/or enforcement
- Placement of Radar Trailer
- Improvement and/or replacement of existing traffic control installations

Requests for these measures can be made by contacting:

Customer Service at (831) 768-3133 or customerservice@cityofwatsonville.org

Watsonville Police Department at (831) 471-1151 (non-emergency dispatch) or Traffic Division at (831) 768-3315

*If Level 1 measures are not effective at addressing the traffic issues, residents would be encouraged to proceed to Level 2 measures.*
LEVEL 2 – NEIGHBORHOOD TRAFFIC GROUP

It is important to work collaboratively with neighborhood residents that share the goal of improving their neighborhood safety and are willing to work together along with City staff to make an effective change.

Level 2 employs formation of a Neighborhood Traffic Group (See Attachment 1 for Request Form) that requires the following:

- The group must include at least 15 neighborhood residents that are in agreement of the type of concerns that exist
- Agree to educate themselves and others about good driving behavior
- Work with City staff towards improving safety in their neighborhood and participate in the process of developing a plan to address the traffic issue in their neighborhood

The Neighborhood Traffic Group will work with City staff and can include the following strategies:

1. Conducting neighborhood meetings to increase awareness.
2. Implementing education techniques such as:
   a. Distribution of flyers or brochures on topics such as pedestrian safety, driver responsibilities, etc., through homeowners associations or neighborhood groups and schools; and
   b. Post public service announcements and articles in local newspapers
3. Distributing temporary speed awareness signs or door hangers within the neighborhood.
4. Implementing the Neighborhood Speed Watch program (Appendix A) to help address speeding concerns.
5. Work on other strategies, data collection efforts, or measures as determined by neighborhood group and City staff.

If Level 1 and 2 measures are not effective at addressing the traffic issues, proceed to Level 3 measures.
LEVEL 3 - TRAFFIC CALMING INSTALLATIONS

Traffic calming installations are physical roadway design features or dynamic signage and warning systems designed to slow vehicular traffic within, or divert traffic from, residential neighborhoods. They are explored when the use of level 1 and 2 measures do not effectively address these concerns.

Level 3 measures would build upon what the already formed Level 2 - Neighborhood Traffic Group has discussed and would continue to explore the appropriate physical improvements that could work effectively in their neighborhood.

Level 3 traffic calming measures are listed in detail in Appendix B and can include:

- Flashing Beacons
- Road Humps
- Traffic Circles
- Radar Speed Display
- Chokers
- Round-a-bouts
- Median Islands
- Bulb outs
- Etc.

The Level 3 Traffic Calming installations would require:

I. An engineering study and design
   a. Including determination of potentially impacted streets or area

II. Discussion and 70% approval from the Neighborhood Traffic Group
   a. Additionally, 100% approval is required from impacted, adjacent neighbors to any proposed installation; This would include properties directly in front of proposed speed humps, curb extensions, etc. that would alter the street and traffic directly in front of their property.

III. Approval by Watsonville Police, Fire and Public Works Departments

IV. City Council approval may be required
FUNDING

Funding for the Level 3 Traffic Calming projects can be through a combination of various means including City funding, grants, private developers and/or neighborhoods.

Due to the City’s limited funding, traffic calming projects will be prioritized based on an established ranking system. Those projects that rank the highest on the list will be recommended to the City Council for funding.

PRIORITIZATION AND RANKING OF PROJECTS

Eligible traffic calming projects will be prioritized for implementation based upon the severity of the traffic conditions by taking into account the following cumulative traffic impacts: speeding, volume, cut-through traffic, crash history, proximity to pedestrian generators (like schools, parks, community centers) and unique roadway conditions. Priority points will be assigned per Table 1.

### TABLE 1 – Priority Ranking Criterion

<table>
<thead>
<tr>
<th>CRITERION</th>
<th>POINT SCALE</th>
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<tbody>
<tr>
<td>Speed</td>
<td>2 points for each mph difference between the 85th percentile speed and the posted speed limit</td>
</tr>
<tr>
<td>Volume</td>
<td>1 point for each 500 vehicles over 1,000 vehicles per day; 5 points if 40 – 65% or more Average Daily Traffic (ADT) on local street is cut-through traffic between arterials or major roadways; 10 points if higher than 65%</td>
</tr>
<tr>
<td>Crash History</td>
<td>5 points for each speed-related crash in the past 3 years</td>
</tr>
<tr>
<td>Pedestrian Generators</td>
<td>5 points for each school, park/trail access, library or community center on street; 3 points if within 1 block; 2 points if within 2 blocks</td>
</tr>
<tr>
<td>Unique Conditions</td>
<td>5 points for designation as a Bike Route or existing/planned transit hub; 5 points for missing sidewalk section; 5 points for unique roadway geometry that substantially restricts visibility</td>
</tr>
<tr>
<td>Funding Match</td>
<td>1 point for each percent of matching funds from residents or other source</td>
</tr>
</tbody>
</table>
At the close of each funding cycle (fiscal year), the highest ranked projects will be considered for construction in the following fiscal year, dependent upon funding, resource availability and community support. However, adjustments in schedules of traffic calming projects may be made based on coordination with scheduled capital improvement or private development projects or on availability of funding specific to the project.

**TRAFFIC CALMING PROJECT SCHEDULE**

Some Level 3 traffic calming projects may require a trial installation. The duration of the trial would be at minimum six (6) months, during which time City staff will evaluate the effectiveness of the installation.

Minor adjustments may be made to the installation based upon review by City staff and input from the community. Based on all relevant data and community input, Public Works will develop a proposed plan and schedule for permanent installation of the traffic calming project that will be presented to the community for consensus.

Community-supported Level 3 projects that have been ranked and prioritized will be presented to the City Council for consideration and, if approved, programmed for installation. Installation of final project will be dependent on the complexity of the project and the available resources for construction and ongoing maintenance of installed devices.

**OUTREACH REQUIREMENTS FOR TRAFFIC CALMING PROJECTS**

Residents, businesses and schools that may be affected by the outcome of a Level 3 Traffic Calming project will be notified in writing. These projects will typically include at least one community meeting with the households, businesses and schools in the project area.

Projects will also be coordinated with providers of emergency response services, transit services, utilities and related services.
APPENDIX A

NEIGHBORHOOD SPEED WATCH PROGRAM
The City of Watsonville’s Neighborhood Speed Watch program was developed to empower community members to take an active role in addressing speeding concerns within their neighborhoods.

**How does the Neighborhood Speed Watch Work?**

Neighborhood residents, working in teams, gather vehicle speed and license plate numbers of vehicles traveling above the posted speed limit in their neighborhood. The information is forwarded to the Watsonville Police Department (WPD).

**What happens after the speed data is turned in?**

WPD will review the information and notify the registered owner(s) of the vehicle(s) driving at least 10 mph or more above the posted speed limit.

**How can I start a Neighborhood Speed Watch Program?**

The Neighborhood Speed Watch is incorporated into the Neighborhood Traffic Plan. To start the program in your neighborhood you should:

1. Organize volunteers. A minimum of two volunteers is required: one to operate the radar gun, the other to record the vehicle information.

2. Make an appointment to check out a radar gun* from the Watsonville Police Department at 831-768-3315. You will receive basic training on its use and proper data collection techniques.

3. Schedule data collection at a time you feel speeding is at its worst.

4. Return the radar gun and completed speed data collection forms to the Watsonville Police Department.

*Because of the value of the equipment, a deposit – by credit or cash – will be required in order to check out the radar gun. This will be refunded to you upon return of the equipment.
APPENDIX B

TRAFFIC CALMING: TECHNIQUES & DEVICES
Community Outreach (all Levels)
Community Outreach and Education works to involve impacted neighborhoods to raise awareness of traffic and safety issues. Community outreach includes neighborhood meetings, written communication (newspaper, emails, etc.), workshops, or any programs that help to educate the community.

**Purpose:** To make the community aware of traffic safety in their neighborhoods. Make drivers more mindful of following speed limits and public safety.

**Advantages**
- Allows community to express their concerns
- Helps the community and City staff to pinpoint traffic concerns
- Educates the public on traffic calming and safety

**Disadvantages**
- Could provide limited effectiveness
- Cannot inform the entire community
- Potential language and cultural barriers
- Can be time consuming
Resident Requests (Level 1) & Neighborhood Traffic Group (Level 2)

Police Enforcement

Police enforcement involves presence of police to monitor speeds and other inappropriate driving behavior and issue citations when necessary. This method is used as an initial attempt to increase driver compliance on streets. It is most applicable on streets with documented speeding problems or notable stop sign/red light violations that need quick mitigation. It can also be used during the learning period when new devices or restrictions are first implemented.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases driver awareness</td>
<td>Short term solution</td>
</tr>
<tr>
<td>Effective in reducing speeds</td>
<td>Temporary measure</td>
</tr>
<tr>
<td>while officers are present</td>
<td></td>
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<tr>
<td>Can be implemented on short</td>
<td>Effective while police is present</td>
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<tr>
<td>notice</td>
<td></td>
</tr>
<tr>
<td>Targets specific times when</td>
<td>Enforcement is subject to police</td>
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<tr>
<td>speeding is most problematic</td>
<td>availability</td>
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<tr>
<td>Targets violators without</td>
<td></td>
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<tr>
<td>impacting normal traffic</td>
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</table>
Parking Enforcement
Parking enforcement is conducted by Watsonville Police Department, Parking Enforcement Unit and is responsible for enforcing parking regulations city wide. Some of the issues that parking enforcement can address include blocked driveways, vehicles parked in red zones, vehicles parked for more than 72 hours or any other related violation.

<table>
<thead>
<tr>
<th>Advantages</th>
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</thead>
<tbody>
<tr>
<td>Increases awareness</td>
<td>Short term solution</td>
</tr>
<tr>
<td>Effective while officers are present</td>
<td>Short period of effectiveness</td>
</tr>
<tr>
<td>Can target specific time periods</td>
<td>Enforcement is subject to officer availability</td>
</tr>
<tr>
<td>Targets violators without impeding traffic</td>
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</tbody>
</table>

Advantages

Increases driver awareness
Effective at reducing speeds temporarily

Disadvantages

Short term solution
Short period of effectiveness

Radar Speed Display Trailer
The radar speed display trailer is a mobile unit that can be set up on roadways where speeding is a problem to inform motorists of their speed. The radar speed display trailer is set out by the Traffic Enforcement Unit.

<table>
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<td>Short period of effectiveness</td>
</tr>
</tbody>
</table>

Advantages

Increases driver awareness
Effective at reducing speeds temporarily

Disadvantages

Short term solution
Short period of effectiveness
**Neighborhood Speed Watch**
The Neighborhood Speed Watch Program (see Appendix A for more details) encourages community involvement in addressing speeding concerns. Community members monitor speeds, with the use of a radar gun, in their neighborhoods and record license plate information of speeding vehicles. Based on the data collected the Watsonville Police Department will notify registered owners that their vehicle was observed traveling at an excess rate of speed.

### Advantages

<table>
<thead>
<tr>
<th>Advantage</th>
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<tbody>
<tr>
<td>Identifies speeders</td>
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<tr>
<td>Increases driver awareness</td>
</tr>
<tr>
<td>Effective at reducing speeds temporarily</td>
</tr>
<tr>
<td>Allows for community involvement</td>
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### Disadvantages

<table>
<thead>
<tr>
<th>Disadvantage</th>
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</thead>
<tbody>
<tr>
<td>Short term solution</td>
</tr>
<tr>
<td>Short period of effectiveness</td>
</tr>
<tr>
<td>Monitoring must be done on a continuous basis</td>
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</table>
**Signs**
Traffic signs are intended to make the motorist aware of their surroundings. The installation of additional signs, or replacement of worn out signs can enhance driver awareness. The cost of installing or replacing a sign is relatively low and can be done quickly.

Signs prohibiting movements by time of day or STOP signs require a different process and are explained later on in this document.

<table>
<thead>
<tr>
<th><strong>Advantages</strong></th>
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<tbody>
<tr>
<td>Increases driver awareness</td>
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<tr>
<td>Inexpensive</td>
</tr>
<tr>
<td>Can be installed quickly</td>
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</table>

<table>
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<tr>
<th><strong>Disadvantages</strong></th>
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</thead>
<tbody>
<tr>
<td>Motorists many not comply</td>
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</tbody>
</table>

**High Visibility Crosswalks**
High visibility crosswalks are intended to increase driver awareness at pedestrian crossings located at uncontrolled intersections with high pedestrian activity. These types of crosswalks are generally installed when determined by an engineering analysis, which consists of established warrants based on the California Manual on Uniform Traffic Control Devices (see Appendix C for warrants).

<table>
<thead>
<tr>
<th><strong>Advantages</strong></th>
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<tbody>
<tr>
<td>Increases driver awareness</td>
</tr>
<tr>
<td>Defines pedestrian crossing area</td>
</tr>
<tr>
<td>Increases visibility of pedestrian crossing</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Disadvantages</strong></th>
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</thead>
<tbody>
<tr>
<td>May provide pedestrians with a false sense of security</td>
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</table>
Pavement Striping
The purpose of pavement striping is to define travel paths for motorists, pedestrians and bicyclists. For example, lane line striping defines the motorists travel way, reducing the travel lane gives motorists the sense of a narrower street, thereby reducing the travel speed. Other types of uses for striping in neighborhoods can include center line, limit line, edge line, raised pavement markers and crosswalks.

Advantages
- Increases driver awareness
- Narrows travel way
- Reduced speeds
- Easily implemented

Disadvantages
- Increased maintenance cost
TRAFFIC CALMING DEVICES (Level 3)

**Speed Humps**
Speed humps are proven effective at reducing speeds when installed appropriately and when warranted. Speed humps are strategically installed along a segment of roadway that is experiencing adverse speeding conditions to reduce speeds.

Requires 100% support of neighbors adjacent to installation.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective at reducing speeds</td>
<td>Adjacent homes may experience a slight noise increase</td>
</tr>
<tr>
<td>May reduce traffic volumes</td>
<td>May divert traffic to other neighborhood streets</td>
</tr>
<tr>
<td>Does not impact emergency response times</td>
<td>Requires installation of additional signs</td>
</tr>
</tbody>
</table>

**Curb Extensions, Diverters, Chicanes, Chokers**
These are various methods of narrowing the roadway by extending raised curbs into the street. These can be done at street entries and exits as well as mid-block locations. The narrower street generally results in reduced traffic speeds and provides pedestrians with shorter crossing distances.

<table>
<thead>
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<tbody>
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<td>May divert traffic to other neighborhood streets</td>
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<tr>
<td>May reduce traffic volumes</td>
<td></td>
</tr>
<tr>
<td>Provides pedestrians with shorter crossing distances</td>
<td>Requires parking in the neighborhood</td>
</tr>
</tbody>
</table>
**Median Barriers & Median Entry/Exit Islands**

A median barrier or raised island along the center of a roadway to prohibit left turns or crossing traffic. Median entry/exit islands are traffic islands used to create a narrower roadway passages at entry and exit points to residential neighborhoods.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Reduces cut through traffic</td>
<td>May divert traffic to other streets</td>
</tr>
<tr>
<td>Enhances pedestrian safety</td>
<td>Increased signage to guide motorists</td>
</tr>
<tr>
<td>Enhances bicycle safety</td>
<td>May increase response times for emergency services</td>
</tr>
<tr>
<td>May reduce speeds</td>
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</tr>
</tbody>
</table>

**Forced Turn Islands, Barriers, Channelization**

These are traffic islands or curbs specifically designed to prevent traffic from making specific movements at an intersection.

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<td>Enhances bicycle safety</td>
<td>May increase response times for emergency services</td>
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<tr>
<td>May reduce speeds</td>
<td></td>
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</table>
Roundabouts
Roundabouts are designed to reduce traffic congestion and improve safety at congested intersections of heavier traveled collector and/or arterial streets. Traffic flows counter clockwise and is generally controlled by Yield signs. These are proven to increase safety, reduce congestion, and emissions.

Advantages
- Reduces congestion
- Enhances pedestrian and bicycle safety
- Reduces speeds
- Reduces vehicle emissions

Disadvantages
- Moderate cost to install

Traffic Circles
This device is a raised circular island in the middle of a residential neighborhood intersection. Direct straight through movements are obstructed by the raised island causing traffic to move to the right and around the circle. The intersection approaches are normally controlled by yield signs that serve to alert motorists to the need to slow their speed entering the intersection.

Advantages
- Reduces speed
- Reduces traffic volumes
- Reduces truck traffic
- Enhances safety at intersections

Disadvantages
- Loss of parking
- Increased maintenance costs
- May increase emergency response times
**Turn Restriction Signs**

Turn restrictions prohibit specific movements into or out of neighborhood streets. Turn restrictions consist of prohibiting left or right turn movements by time of day or 24 hours a day. These types of restrictions are typically implemented to address cut through traffic and improve intersection safety.

<table>
<thead>
<tr>
<th>Advantages</th>
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</thead>
<tbody>
<tr>
<td>Reduces traffic volumes</td>
<td>May divert traffic to other neighborhood streets</td>
</tr>
<tr>
<td>Reduces conflict at high volume intersections</td>
<td>May be disregarded by motorists</td>
</tr>
<tr>
<td>Enhances intersection safety</td>
<td>Requires additional signs</td>
</tr>
</tbody>
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**Flashing Beacons**

Flashing beacons are rectangular flashing amber lights that can be placed at school zones or uncontrolled crosswalks to enhance pedestrian safety. The preferred beacons are solar powered and activated by pedestrian push buttons and would be installed at locations that meet the City’s Enhanced Crosswalk Criteria (See Appendix C).

<table>
<thead>
<tr>
<th>Advantages</th>
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</thead>
<tbody>
<tr>
<td>Increases driver awareness</td>
<td>May create a false sense of security for pedestrians</td>
</tr>
<tr>
<td>Activated by pedestrian push button when</td>
<td>Installation and maintenance cost</td>
</tr>
<tr>
<td>pedestrians are present</td>
<td></td>
</tr>
</tbody>
</table>
**STOP Signs**

Stop signs are installed to assign right-of-way among motorists at intersections and are **NOT intended to control speed**.

STOP signs will be installed if warrants established by the California Manual on Uniform Traffic Control Devices are met or City of Watsonville All Way Stop Warrants on Residential Streets are met (See Appendix C).

Numerous studies have shown that speeds are as high as or higher at mid-block than those locations without stop signs. When non-warranted Stop signs are installed motorists tend to roll through the Stop sign and speed up to make up for lost time.

<table>
<thead>
<tr>
<th>Advantages</th>
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<tbody>
<tr>
<td>Reduces conflict at intersections</td>
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<tr>
<td>Enhances pedestrian safety</td>
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<td>May discourage cut through traffic</td>
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<table>
<thead>
<tr>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>Unwarranted stop signs increase delay and</td>
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<tr>
<td>speeds</td>
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<tr>
<td>May be disregarded by motorists</td>
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<tr>
<td>May divert traffic to other neighborhood</td>
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<tr>
<td>streets</td>
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<tr>
<td>May increase noise pollution</td>
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</tbody>
</table>
APPENDIX C

CRITERION AND WARRANTS FOR:

-CROSSWALKS
-FLASHING BEACONS
-STOP SIGNS
CRITERION AND WARRANTS

High Visibility Crosswalks

A pedestrian crossing is either a marked or unmarked extension of pedestrian route through an intersection. The City at its discretion may designate alternative crossing locations. A combination of high visibility signs and markings may be used to enhance visibility and safety.

The following criterion must be met to enhance a pedestrian crossing at uncontrolled locations on collector or arterial streets:

1. Roadway must have four or more travel lanes.
2. Posted speed limit of 35 mph or greater
3. Roadway should not have a median or pedestrian refuge.
4. 40 pedestrians within a peak hour.
5. Nearest controlled crossing is at least 600 feet on either side of proposed location.
6. Average Daily Traffic (ADT) of 12,000 vehicles per day or greater.
7. Established pedestrian generators such as schools, shopping centers, business centers or transit hub.

Mid-Block Crosswalks

Mid-block crossings are generally not expected by the motorist and therefore caution must be taken when establishing such crossings. The following criterion is considered when establishing midblock crossings.

1. A maximum two travel lanes in each direction with no median.
2. Maximum posted speed limit of 30 mph.
3. A maximum roadway width of 60 feet.
4. Nearest controlled crossing is at least 600 feet on either side of proposed location.
5. A minimum of 25 pedestrian within a peak hour.
6. Established pedestrian generators such as schools, shopping center, or transit hub.
**Flashing Beacon**

Flashing Beacons are an optional tool that can be utilized to enhance visibility and inform motorists of pedestrians waiting to cross the street. The proposed location must meet the established criterion for High Visibility Crosswalks or Mid-Block Crosswalks previously listed.

**STOP SIGN WARRANTS**

The California Manual on Uniform Traffic Control Devices (MUTCD) establishes that the use of STOP signs should be considered if engineering judgment indicates that a stop is always required.

**MUTCD criteria will be used** to determine locations for installation of STOP signs on City streets classified as arterials, major and minor collectors and local streets.

For informational purposes, current MUTCD criteria for an **all way or multi way stop** control is as follows:

**Multi-Way Stop Control**

1. Traffic volumes on minor and major streets are approximately equal
2. Interim measure for warranted signals, prior to installation
3. 5 or more reported correctable crashes with a 12 month period.
4. Minimum Traffic Volumes
   a. Major street (both approaches): 300 vehicles per hour for any 8 hours of an average day **AND**
   b. Minor street (both approaches): 200 units per hour, combined vehicle & pedestrian volume, for the same 8 hours, with an average delay of at least 30 seconds per vehicle during the highest hour, **BUT**
   c. If the 85th percentile approach speed of the major street is greater than 40 mph, the minimum vehicular volume warrants are 70 percent of the above values.
5. Where no single criterion is satisfied, but where #3, 4a. and 4b. are all satisfied to 80 percent of the minimum values then criterion 4c. is excluded from this condition.
City of Watsonville

All-Way Stop Control on Residential Streets

City Council Resolution 268-92 establishes alternative warrants for the installation of all way stop control on residential streets. In order to consider the alternative warrants, the following criteria must be met:

1. Both streets have mostly residential frontage.
2. The daily traffic volume on the major street is less than 5,000 vehicles.
3. Both streets are classified as collector or local streets.

Unless all of the above criteria are satisfied, the California Manual on Uniform Traffic Control Devices, Multi-Way Stop Control Warrants must be used. If all criteria is satisfied then an All-Way Stop installation on a residential street intersection may be warranted if any of the following criteria is satisfied:

1. 3 or more correctable accidents within a 12 month period. (These include right angle and left turn collisions)
2. The corner sight distance from the minor street is less than the safe stopping distance on the major street, AND removal of on-street parking would create a hardship for affected residents.
3. An All-Way Stop installation would enhance the safety of the neighborhood, AND 70% of all residents within 1 block of the intersection sign a petition for the installation of an All-Way Stop.
We would like to initiate a Neighborhood Traffic Group in our neighborhood.

The following signatures representing at least fifteen different residences in our neighborhood indicate our neighborhood’s commitment to work with the City for a safer traffic environment in our community.

*We, the undersigned, pledge to educate ourselves and others on the importance of obeying all traffic laws, advantages of driving the speed limit and will encourage others to do so.*

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<thead>
<tr>
<th>Signature</th>
<th>Address</th>
<th>Phone (daytime)</th>
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Residents are also required to work with City staff and be part of the process to develop a plan to address the traffic issue.

What traffic concerns do you have in your neighborhood? (Please include as much information as possible including a specific location, time of day, day of week, etc.)

______________________________________________________________________________
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______________________________________________________________________________

Which measures are residents most interested in to address the traffic concern(s)?

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Questions? Please contact us at (831) 768-3140

Thank you for taking the time to complete the request form. Please return to:

Public Works & Utilities Dept., 250 Main St, Watsonville CA 95076
ATTN: Traffic Operations